## Owen-Putnam State Forest Resource Management Guide

Forester's Narrative Compartment 8 Tract 5 June 2009

Robert Duncan - Forest Resource Specialist

#### Location

Compartment 8, tract 5 lies in the center of section 34, township 11N, range 4W, Morgan Township, Owen County. It is approximately 1.5 miles southeast of the horse campground and approximately 1.5 miles northeast of the office.

#### **General Description**

This tract is a 61-acre managed, multiple use parcel within compartment 8. Timber type is predominantly mixed upland hardwoods. Pines were planted in 1953 along the access road and ridge top to control erosion from past disturbance. The over-story consists of medium to large sawlog sized Yellow Poplar, Sugar Maple, White Oak and Red Oak. The quality of merchantable timber is good. The pole-sized under-story consists mostly of Sugar Maple, American Beech, Virginia Pine, Bitternut Hickory, Red Maple, Shagbark Hickory, and Yellow Poplar present at less than one tree per acre. Advanced regeneration is represented mostly by Sugar Maple, beech and elm with Yellow Poplar and Chinkapin Oak present at less than one tree per acre. This area exhibits good opportunities for multiple use management, including timber management, wildlife management, soil and water conservation and public recreational activities, such as, hunting, hiking, gathering, viewing and interpretation.

#### History

Owen-Putnam State Forest was established in 1948 with most of its landholdings purchased as smaller non-contiguous tracts in the 50's and 60's. The ridge tops in the area of this tract were farmed up until approximately 1930 and then planted to White and Virginia Pine in 1953 when the state purchased the land. Compartment 8 tract 5 has been managed for several years, being part of a property wide TIMPIS inventory in 1988 and a tract inventory in 1991 and 1995. The tract was also harvested in 1998.

#### **Landscape Context**

Generally the area is forested hills and ravines with some small brushy/early successional areas, open fields and small open bodies of water. The private properties surrounding this compartment and tract are primarily mixed hardwood forests containing scattered residential housing with some pasturing and no agriculture or industry.

#### Topography, Geology and Hydrology

The topography of the area varies from nearly level ground on the ridge top along the eastern boundary with moderate to steep west, southwest and south facing slopes. Water sheds into a mapped intermittent stream flowing north to south along the west edge of the tract, then into a mapped perennial stream (Fish Creek) flowing north to south on private property southwest of the tract along Fish Creek Road. The area is generally comprised of shallow to moderately deep, well-drained soils often containing fragipans, on nearly level to steep slopes. These soils occur throughout the Illinoian glaciated areas of the county. In the event a harvest operation is performed, the existing haul road and log yards can be utilized. However, care must be taken during the planning and execution of skid trails due to the erosive nature of some soils. Best Management Practice (BMP) guidelines will be followed to preserve soil and water quality (Forest Practices Working Group, Indiana Woodland Steward Institute).

#### Soils

The tract is composed primarily of the Muskingum Stony Silt Loam on 35-70% slopes and the Hickory silt loam on 35-70% slopes. In the Muskingum series are shallow, excessively drained, steep or very steep soils underlain by sandstone, siltstone and shale. The Hickory series consists of deep, well-drained, steep soils that lack a fragipan. These soils are mainly in forest and are excellent for the growth of poplar, oak and hickory. (USDA, SCS – Soil Survey, Owen County, IN 1964).

Specifically, the tract is composed of the following soils:

MmG - Muskingum Stony Silt Loam, 35-70% Slopes

HcG - Hickory Silt Loam, 35-70% Slopes

ZaC2 - Zanesville Silt Loam, 6-12% Slopes, Moderately Eroded

ZnC3 - Zanesville Soils, 6-12% Slopes, Severely Eroded

ZaB2 - Zanesville Silt Loam, 2-6% Slopes, Moderately Eroded

WmE2 - Wellston Silt Loam, 18-25% Slopes, Moderately Eroded

GnB - Ava Silt Loam 2-6% Slopes

Ph - Philo Silt Loam

Gu - Gullied Land, Residuum

#### Access

To access the tract, take State Road 46 approximately 5-miles west of Spencer, IN to Fish Creek Rd., then travel north on Fish Creek Rd. about 2 miles to Weilhammer Rd., then travel east on Weilhammer Rd. 34 mile to Powell Red Bud Lane, then south on Powell Red Bud Lane a 14 mile to the forest parking lot and access road. The tract is accessible to the public via the parking lot off of Powell Red Bud lane.

#### **Boundary**

This tract is located near the center of the 767 acres contained in compartment 8. Tract boundaries follow the ridge top to the north and along a ravine to the northwest and along a mapped intermittent stream to the southwest and along a ravine to the south and along an old abandoned county road to the northeast. Private property borders this tract to the east, of which it has been located and marked with the boundary lines being reasonably well documented and witnessed in the past.

#### Wildlife

Wildlife resources in compartment 8 tract 5 seem abundant. Common species present include Grey Squirrel, White-Tailed Deer, Wild Turkey, raptors, songbirds, herpetiles and fish. This tract contains habitat for a variety of wildlife species. Habitat includes mixed hardwoods containing oak, hickory and beech that provide mast for deer, turkey and squirrel. The pine stands provide benefits such as cover, roosts and browse. Snags and cavity trees provide nesting, bugging and roosting sites for woodpeckers, songbirds, and small mammals. Rotten logs, crater knolls and ponds nearby provide habitat for herptiles and aquatic vertebrates. A review of the Natural Heritage Database was conducted on July 11, 2007 to locate and identify any known endangered, threatened or rare species or communities. The review did not identify any endangered, threatened or rare (E.T.R.) species or communities in or nearby the project area (Carl Hauser, Division of Forestry – Property Program Specialist).

## Silvicultural Prescription

Compartment 8 Tract 5

June 2009

Management Cycle Length - 15 Years Management Cycle End Year – 2013

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In 1988 a property wide inventory (TIMPIS) was conducted, including Compartment 8 tract 5. The results estimated the tract to contain 5131 Bd. Ft. of total sawtimber per acre and 1001 Bd. Ft. of harvest sawtimber per acre, with a stocking level of 80% and a harvest proposed in the year 1996. The tract was again inventoried in 1991, 1995 and 2009. The 1991 data estimated the tract to contain 60 Sq. Ft. of basal area per acre  $\geq$  12 inches in diameter at breast height (d.b.h.) and approximately 4596 Bd. Ft. of total sawtimber per acre with an estimated 1762 Bd. Ft. of harvest sawtimber. The 1995 data estimated the tract to contain 74.6 Sq. Ft. of basal area per acre  $\geq$  12 inches in d.b.h. and approximately 5649 Bd. Ft. of total sawtimber per acre with an estimated 1719 Bd. Ft. of harvest sawtimber. The 2009 data estimated the tract to be 95% stocked with 74 Sq. Ft. of basal area per acre  $\geq$  12 inches in d.b.h. and approximately 3,582 Bd. Ft. of total sawtimber per acre with an estimated 940 Bd. Ft. of harvest sawtimber per acre and an

average tree diameter of 9 inches. The tract was harvested in 1998 with 92,796 Bd. Ft. in 355 trees on 54 acres (1718 Bd. Ft./Acre) removed as part of a selective thinning.

The over-story consists of medium to large sawlog sized Yellow Poplar, Sugar Maple, White Oak and Red Oak. There are several large mature Yellow Poplar overly competing with the oaks and the Black Walnuts along the creek bottom. The quality of merchantable timber is good. The pole-sized under-story consists mostly of Sugar Maple, American Beech, Virginia Pine, Bitternut Hickory, Red Maple, Shagbark Hickory, and Yellow Poplar present at less than one tree per acre. Advanced regeneration is represented mostly by Sugar Maple, beech and elm with Yellow Poplar and Oak present at less than one tree per acre.

The current stocking level indicates the tract is fully stocked although not overstocked in response to the harvest in 1998. However, the recommendation is to thin the mature Yellow Poplar and harvest the low quality, damaged, diseased, dying and poorly formed trees that are competing with the oaks and the Black Walnuts along the creek bottom. These trees will be removed as part of the timber sale in C8T1,2,6. As with any forest management activities, Best Management Practice (BMP) guidelines will be followed to protect soil and water resources (Forest Practices Working Group, Indiana Woodland Steward Institute).

Management in the form of Timber Stand Improvement (TSI) was performed in 2005 to control grapevines. Standing dead trees (snags) will be given consideration as habitat for wildlife, such as the Indiana Bat. In addition, the girdling of select cull trees could be performed through post harvest TSI to address the suggested guidelines of the Strategy for the Consideration of the Indiana Bat (IDNR – Division of Forestry, Resource Management Strategy for the Indiana Bat, April 2001).

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## Owen-Putnam State Forest

# Topographic Map Compartment 8 Tract 5 61 - Acres

**USGS - 7.5 Minute Series Spencer Quadrangle** 

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